STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

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FROM:	DATE:

[redacted]

M E M O R A N D U M

DATE: August 25, 2000

TO: **INYO COUNTY BOARD OF SUPERVISORS**
INYO COUNTY SHERIFF'S DEPT
INYO COUNTY ENVIRONMENTAL HEALTH DEPT
SOUTHEAST AREA CITIZEN ADVISORY COMMITTEE
CALIFORNIA ENERGY COMMISSION
CALIFORNIA HIGHWAY PATROL - BISHOP
CALTRANS DISTRICTS 8 AND 9
SUPERINTENDENT, DEATH VALLEY NATIONAL PARK
DOE - NEVADA, ENVIRONMENTAL MANAGEMENT

FROM: Andrew Remus, Project Coordinator
Inyo County Yucca Mtn Repository Assessment Office

RE: **Report on April - June, 2000 Low Level Nuclear Waste Shipments on State Route 127**

CAL. TRANS. DIST. 9
2000 AUG 28 PM 7:36

The following report describes the transportation of low-level nuclear waste on State Route 127 during the time period April 1 - June 30, 2000 as reported by the U.S. Department of Energy's Environmental Management Program, and discusses the recent "agreement" between DOE and Kaiser Hill Company regarding routing of low-level nuclear waste from the Rocky Flats remediation site.

Background information on DOE's low-level nuclear waste shipping campaign and shipping statistics for previous quarters are provided in ***Attachment A.***

Attachment B is the April - June 2000 shipment table submitted by DOE which forms the basis for this report.

Attachment C is a DOE Memorandum from DOE-Rocky Flats to the Rocky Flats site contractor Kaiser Hill addressing shipment restrictions for Hoover Dam and Las Vegas.

Low-Level Nuclear Waste Shipping Update

The **April - June 2000 DOE report** on LLW shipments to NTS indicates the following:

Total Shipments to NTS	147
Shipments on SR 127	16 (11% of all shipments)
Shipments on NV 160	17 (12% of all shipments)*
Shipments through Las Vegas	55 (37% of all shipments)
Shipments on Northern Routes	64 (44% of all shipments)
Shipments on Southern Routes	83 (56% of all shipments)

*four shipments from Fernald utilized both SR127 and NR160, traveling between Nevada and California on either Stateline Road or California State Route 178 (actual route cannot be determined based on available information).

Based on the most recent DOE report, we can see that, in contrast to DOE's intent to focus summer shipping activity on the northern approaches, summer shipments were split somewhat evenly between northern and southern routes, with southern routes actually hosting the majority of the shipments. Shipments on State Route 127 between April and June were, however, particularly low relative to the previous two quarters (11% of all low-level waste shipments compared to 63% during the last three months of 1999).

Of the 16 shipments which utilized SR127 during the period April to June 2000, 9 of these *originated in California*.

Las Vegas - Rocky Flats Issue

DOE has requested that the parties responsible for transportation of low-level nuclear waste from the Rocky Flats site (Denver, Colorado) avoid shipping material over the Hoover Dam and through the Las Vegas Valley, citing ongoing road construction and traffic congestion in Las Vegas and near Hoover Dam as reasons for avoiding routes which traverse these areas (see ***Attachment C***). DOE made this request in response to complaints from Clark County, Nevada regarding the large number of Rocky Flats shipments (39 shipments, 27% of all April-June LLW shipments) that were sent through the Las Vegas Spaghetti Bowl during the April - June 2000 time period.

ATTACHMENT A

Background

The U.S. Department of Energy (DOE) administers a program to clean up radioactively contaminated facilities across the nation. Most of these sites, private and public, served as components of the nuclear weapons research, production and testing complex that began development in the 1940's. The remediation of contaminated and typically decommissioned facilities involves the extraction, consolidation, and packaging of huge volumes of contaminated soil, water and debris, and the dismantling of many buildings and pieces of equipment. The clean up process itself generates large volumes of contaminated clothing, gloves, boots and other equipment. Some remediation projects require on-site disposal of contaminated materials, while other projects call for the transport of low-level nuclear waste (LLW) to the Nevada Test Site (NTS) for shallow land burial. The DOE report on low-level waste shipments summarizes shipments to NTS during the first three months of 2000.

DOE has come under criticism from the City of Las Vegas and Nevada State officials for allowing the transportation of LLW over the Hoover Dam and through the "Spaghetti Bowl" in downtown Las Vegas. As a result, DOE has encouraged LLW shippers to avoid both the Dam and Las Vegas by using rural northern Nevada routes during the summer, (when the weather is good), and the southern approaches to NTS (California State Route 127 and Nevada Route 160) during the winter, when northern routes are less reliable. Although DOE does not have the authority to dictate route choice to shipping companies transporting LLW, DOE has agreed to encourage shippers to conform to a basic North in Summer/South in Winter pattern, and furthermore, to attempt to split shipments on the southern approach evenly between California State Route 127 and Nevada Route 160. Neither California or Inyo County nor Nevada or Nye County have officially endorsed this approach to balancing the risks of LLW shipments to NTS.

The **October - December 1999 DOE report** on LLW shipments to NTS indicated the following:

Total Shipments to NTS	82*
Shipments on SR 127	53 (63% of all shipments)
Shipments on NV 160	5**
Shipments through Las Vegas	25 (30% of all shipments)
Shipments on Northern Routes	4

*excludes 1 on-site transfer and 1 unspecified shipment from Fernald

**these shipments also traveled on SR127, with the shipper using both NR160 and SR127 during each shipment via California State Route SR178 between Pahrump, NV and Shoshone, CA

The **January - March 2000 DOE report** on LLW shipments to NTS indicated the following:	
Total Shipments to NTS	112
Shipments on SR 127	32 (29% of all shipments)
Shipments on NV 160	26 (23% of all shipments)
Shipments through Las Vegas	53 (47% of all shipments)
Shipments on Northern Routes	1

Detail on Generator Sites

The following section provides a brief profile of each of the low-level waste generator sites reported as having shipped **low-level waste** to NTS during the nine-month reporting period. These sites may include other waste types that are either being disposed of on site or transported to a disposal facility other than NTS. As a reminder, low-level nuclear waste is:

"...any radioactive waste that...[is not spent nuclear fuel, high-level waste, transuranic waste, mixed-waste or uranium-mill tailings]. It is produced by virtually every process involving radioactive materials. Low level waste spans a wide range of characteristics, but most of it contains small amounts of radioactivity in large volumes of material..."

Boeing-Rocketdyne (Energy Technology Engineering Center)	
General Location:	Los Angeles, California
Nature of Facility:	Nuclear reactor development and testing.
Type of Waste Generated:	Low Level Nuclear Waste and Low Level Mixed Waste (combinations of radioactive and other wastes classified as "hazardous waste"), Transuranic Waste and High-Level Nuclear Waste.
Estimated Date for Completion of Site Remediation: 2010	

FERMCO (Fernald Environmental Management Project)	
General Location:	Cincinnati, Ohio
Nature of Facility:	Decommissioned nuclear material plant utilized to produce uranium metal and uranium compounds for use at other DOE facilities.
Type of Waste Generated:	Low Level Nuclear Waste and Low Level Mixed Waste (combinations of radioactive and other wastes classified as "hazardous waste"). Total low-level and low-level mixed waste volume at the site is approximately 2,600 cubic meters.
Estimated Date for Completion of Site Remediation: 2005	

General Atomics	
General Location:	San Diego, California
Nature of Facility:	Research centered on nuclear reactor testing.
Type of Waste Generated:	Low Level Nuclear Waste and Low Level Mixed Waste (combinations of radioactive and other wastes classified as "hazardous waste") and Hazardous Waste.
Estimated Date for Completion of Site Remediation: 2000	

Lawrence Livermore National Lab	
General Location:	Livermore, California
Nature of Facility:	Facility utilized for nuclear weapons and nuclear fusion research.
Type of Waste Generated:	Low Level Nuclear Waste, Low Level Mixed Waste, Hazardous Waste and Transuranic Waste.
Estimated Date for Completion of Site Remediation: 2006	

Mound (Miamisburg Environmental Management Project)	
General Location:	Dayton, Ohio
Nature of Facility:	Facility utilized for nuclear materials research and manufacture of nuclear weapons components.
Type of Waste Generated:	Low Level Nuclear Waste, Low Level Mixed Waste, and Transuranic Waste.
Estimated Date for Completion of Site Remediation: 2005	

Pantex	
General Location:	Amarillo, Texas
Nature of Facility:	Facility utilized to assemble, disassemble, evaluate and maintain nuclear weapons.
Type of Waste Generated:	Low Level Nuclear Waste, Low Level Mixed Waste, Hazardous Waste, and a small amount of Transuranic Waste. Total waste volume for Low-Level Waste and Low-Level Mixed Waste is approximately 3,390 cubic meters.
Estimated Date for Completion of Site Remediation: 2000	

Rocky Flats	
General Location:	Denver, Colorado
Nature of Facility:	Facility utilized for production of nuclear weapons components from plutonium and other metals.
Type of Waste Generated:	Low Level Nuclear Waste, Low Level Mixed Waste, and Transuranic Waste. Total waste volume for Low-Level Waste and Low-Level Mixed Waste is approximately 62,000 cubic meters.
Estimated Date for Completion of Site Remediation: 2006	

Sandia National Lab (CA)	
General Location:	Livermore, California
Nature of Facility:	Facility utilized for nuclear weapons development and engineering.
Type of Waste Generated:	Low Level Nuclear Waste, Low Level Mixed Waste, and Hazardous Waste.
Estimated Date for Completion of Site Remediation: 2006	

Sandia National Lab (NM)	
General Location:	Albuquerque, New Mexico
Nature of Facility:	Facility utilized for developing, engineering and testing non-nuclear components of nuclear weapons.
Type of Waste Generated:	Low Level Nuclear Waste, Low Level Mixed Waste, Transuranic Waste and Hazardous Waste. Total waste volume for Low-Level Waste and Low-Level Mixed Waste is approximately 2,600 cubic meters.
Estimated Date for Completion of Site Remediation: 2001	

Low-Level Radioactive Waste Shipments to the Nevada Test Site
Third Quarter Report, FY 2000 (April to June, 2000)

GENERATOR	VOLUME (ft^3)	SHIPMENTS	ROUTES
FERMCO (OH)	30,900	4	Southern Route (I-15, CA-127, NV-373, NV-160, US-95)
		31	Northern Route (I-80, US-93, US-6, US-95)
General Atomics (CA)	4,700	5	Southern Route (I-15, CA-127, NV-373, US-95)
Lawrence Livermore National Lab (CA)	6,000	3	Northern Route (I-580, I-205, I-15, I-80, US-95)
		1	Northern Route (I-580, I-205, CA-99, CA-58, I-15, US-95) thru Las Vegas Spaghetti Bowl
Mound (OH)	19,300	4	Northern Route (I-80, US-93, US-6, US -95)
		2	Southern Route (I-40, US-95, NV-164, I-15, CA-127, NV-373, US-95)
		12	Southern Route (I-40, US-95, NV-164, I-15, NV-160, US-95)
		1	Southern Route (I-40, US-95) thru Las Vegas Spaghetti Bowl
Pantex (TX)	0	0	
Boeing-Rocketdyne (CA)	3,950	4	Southern Route (I-15, CA-127, NV-373, US-95)
Rocky Flats (CO)	106,000	39	Las Vegas Route (I-15, US-95) thru Las Vegas Spaghetti Bowl
		14	Las Vegas Route (I-15, Cheyenne/Craig, US-95) Avoids Las Vegas Spaghetti Bowl
Sandia National Lab (CA)	0	0	
Sandia National Lab (NM)	2,410	1	Southern Route (I-40, US-95, I-515, NV-146, I-15, NV-160, US-95)
		1	Southern Route (I-40, US-95, NV-164, I-15, CA-127, US-95)
Oak Ridge (TN)	4,550	25	Northern Route (I-80, US-93, US-6, US-95)
TOTALS	177,810	147	

NOTE: The routes described above are the core routes used by the motor carriers that haul low-level waste to the Nevada Test Site. On a daily basis, variations of these routes are used by the motor carriers. Additional shipments of waste are received from on-site generators. No waste was received from GTS Duratec in Tennessee, Pantex, or SNL-CA during this quarter. Three shipments did not disclose routing.

ATTACHMENT B

ited States Government **ATTACHMENT C** Department of Energy

memorandum

Rocky Flats Field Office

DATE: JUN 16 2000

REPLY TO ATTN OF: AMEI:JAL:02819

SUBJECT: Low Level Waste Shipping Routes

TO: Robert G. Card
President
Kaiser-Hill Company, L.L.C.

The purpose of this memorandum is to provide interim direction to Kaiser Hill Company, L.L.C. (K-H) to implement the direction provided from Department of Energy Headquarters and described in the attached memorandum of March 16, 2000, from James Fiore. Specifically, you are directed to:

1) Avoid shipping Low Level Waste over Hoover Dam and through the Las Vegas valley; and
2) Direct your transportation motor carrier(s) to find safe and cost-effective Department of Transportation compliant alternative routes and mode(s) of transportation, if appropriate, given these route restrictions.

Also, I am in receipt of your letter of April 21, 2000, in which you provided the Rocky Flats Field Office (RFFO) the schedule and cost impact of implementation of the Nevada Test Site low level waste shipping route changes. The RFFO is in the process of cost validation and commits to negotiate an equitable adjustment with K-H once the cost validation is complete. However, this should not delay K-H implementation of this technical direction.

You are to notify the RFFO at least 48 hours prior to implementing these alternate routes.

If you have any questions about this matter please call my point of contact, Joe Legare, at 966-2282.

Barbara A. Mazurowski

Barbara A. Mazurowski
Manager

Attachment

cc w/Att.:
J. Fiore, EM-30, HQ
C. Dan, CPMC, RFFO
J. Legare, AMEI, RFFO

ACTION
INFO AMEM
MGR
AMBFS
AMTS
AMNS